#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

## WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-027102 Address: 333 Burma Road **Date Inspected:** 20-Jan-2012

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: L & M Industrial Fabricators **Location:** Tangent, Oregon

**CWI Name: CWI Present:** Yes Tom Drever No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Tower Chimney Parapet

### **Summary of Items Observed:**

his Quality Assurance (QA) Inspector, Art Peterson arrived at L & M Industrial Fabricators between the times noted above to randomly observe Quality Control (QC) personnel monitor the welding operations performed by L & M personnel on the fabrication of chimney parapet walls to the Tower Heads. The following observations for the extra work being performed to the following contract change order were:

CCO: 196 - Description: Construct parapet walls at the Tower Heads

### North Chimney Parapet:

This QA Inspector randomly observed L & M welder Otis Smith (Welder ID #19) performing the root, fill, and cover pass weld operation on a complete-joint-penetration (CJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall base plate-A6a to A6b-wall plate and the partial-joint-penetration (PJP) groove weld in the (3G) vertical position connecting the parapet wall base plate-A6a to Tower Head Top plate of the North Chimney Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwords verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-TC-U4b-GF and WPS-D1.5-TC-P3-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-TC-U4b-GF and WPS-D1.5-TC-P3-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 to the Engineer for approval but has yet to be approved. This QA Inspector generated an

# WELDING INSPECTION REPORT

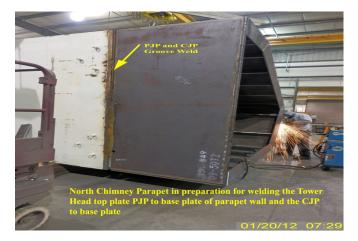
(Continued Page 2 of 2)

Incident Report on January 12th, 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

This QA Inspector randomly observed L & M welder David Harrington (Welder ID #34) performing the root, fill, and cover pass weld operation on a complete-joint-penetration (CJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall top plate-A6d to A6b-wall plate of the North Chimney Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwords verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-TC-P4-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-TC-P4-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th, 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.





#### **Summary of Conversations:**

Only general conversations with the QC Inspector.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer